

14 November 1997

Re: NEPA Technical Inquiry 0180 - Elevating Structures in Floodplains

Dear NEPA Call-In User:

This letter is in response to your October 21, 1997 request for clarification of two sections of the NEPA Call-In fact sheet, "Floods and Flood Hazards," September 1997. Specifically, page 3 of the fact sheet states, "To achieve flood protection, agencies shall, among other things, elevate structures above the base flood level rather than filling in land." You would like to know where this citation is referenced, whether in GSA ADM 1095.2, "Consideration of Floodplains and Wetlands in Decisionmaking," or in Executive Order (EO) 11988, "Floodplain Management." Also, page 7 of the fact sheet cautions that "A particular structure may be shown to be within the 100-year floodplain, but a survey of the finished floor elevation could show the structure to be above the BFE [base flood elevation]." GSA is constructing a courthouse and parking garage in California. Based on the cautionary statement on page 7 of the fact sheet, you would like to know if this building would be considered to be in a floodplain if the first floor will be above the BFE? Additionally, construction of the parking garage will involve excavation, with part of the parking garage being below the BFE. If the entrances are above the BFE, which would not allow floodwaters in the garage, would the garage be considered in the floodplain? Finally, one alternative being considered is to elevate the entire site, the other is to construct berms around the courthouse to provide floodproofing. You would like to know GSA's liability with respect to the adjacent landowners for future damage caused by GSA's alteration of the floodplain to construct the courthouse.

#### SUMMARY OF FINDINGS

NEPA Call-In found the citation for the statement requiring that agencies elevate structures above the base flood level rather than filling in land is found in Section 3(b) of EO 11988. According to EO 11988, the determination of whether a facility will be located in a floodplain must be made before taking action, that is before alteration of the site. If the proposed location for construction is in the 100-year floodplain (or 500-year floodplain for critical actions), and therefore subject to the requirements of EO 11988, the courthouse and parking garage will also be in the 100- (or 500-) year floodplain. The cautionary statement on page 7 of the fact sheet refers to floodproofing as required by EO 11988. Although elevating the site may remove the building from the floodplain, the requirements of EO 11988 still apply. Regarding GSA's liability to adjacent landowners, there is potential for litigation due to GSA's alteration of the floodplain.

#### DETAILED FINDINGS

NEPA Call-In advised you, on October 21, 1997 that EO 11988, Section 3(b) states: "If after compliance with the requirements of this Order, new construction of structures or facilities are to be located in a floodplain, accepted floodproofing and other flood protection measures shall be applied to new construction or rehabilitation. To achieve flood protection, agencies shall, wherever practicable, elevate structures above the base flood level rather than filling in land." You stated you did not require a copy of the EO.

We reviewed EO 11988, and the U.S. Water Resources Council (WRC) [now

the Federal Emergency Management Agency (FEMA)] document, "Floodplain Management Guidelines for Implementing EO 11988." EO 11988 directs agencies to consider alternatives to avoid adverse effects and incompatible development in floodplains. According to EO 11988, if an agency proposes to "conduct, support, or allow an action to be located in a floodplain," the action is subject to the requirements of the EO which requires the agency to "consider alternatives to avoid adverse effects and incompatible development in the floodplain." An agency may locate a facility in a floodplain if the head of the agency finds there is no practicable alternative. Section 2(a)(1) of EO 11988 states that "before taking action, each agency shall determine whether the proposed action will occur in a floodplain." The WRC guidelines outline the 8 step process for determining there is no practicable alternative to siting in a floodplain. The GSA fact sheet, "When Siting in a Floodplain is the only Practicable Alternative," which you stated you have a copy of, also outlines the steps to site in a floodplain. The first step requires agencies "to determine whether or not the proposed action is located in the base floodplain [100-year floodplain]." Therefore, the determination of whether or not a proposed action will be located in a floodplain must occur before taking action. If the proposed location for the courthouse and parking garage is in the 100-year floodplain, and therefore, subject to the requirements of EO 11988, the courthouse and garage will also be in the floodplain. Any floodproofing (required by EO 11988) such as elevating portions of the site above the floodplain will occur after the determination that the site is in the floodplain and subject to the requirements of EO 11988. Although elevating the site may remove it from the floodplain, the requirements of EO 11988 still apply. Therefore the cautionary statement on page 7 of the fact sheet refers to floodproofing as required by EO 11988. Alterations should be completed in accordance with the floodproofing requirement in EO 11988.

NEPA Call-In contacted the Environmental Quality Advisory Group (EQAG), GSA Region 7. EQAG provided technical assistance in the development of the Floods and Flood Hazards fact sheet, and is a former Chief of Floodplain Management for the U.S. Army Corp of Engineers. EQAG concurred with the above assessment, and stated alterations you make to the site pertaining to floodproofing can reduce the risk of flooding. If the finished floor elevation (slab elevation) is above the BFE, there is a reduced risk of flooding for the building. However, EQAG further stated that Flood Insurance Rate Maps (FIRMs), which are used to determine if a property is in the floodplain, do not consider future urbanization and its impact on the floodplain. Because urbanization tends to alter the floodplain, an area determined on a FIRM to be outside the floodplain ten years ago may, in fact, be in the floodplain or floodway today. EQAG suggests you consider this and exercise caution whenever locating a facility in a floodplain. You should also consider what uses will be made of the first floor of the courthouse in order to determine whether these uses are critical actions. According to the WRC guidelines, Federal agencies should not locate critical actions in the 100-year floodplain, but hold them to the higher standard of the 500-year floodplain. Critical actions are those for which even slight chance of flooding would be too great, such as the operation of the U.S. Courts or storage of essential or irreplaceable records.

Regarding your question about GSA's liability to adjacent landowners for damages due to GSA's alteration of the floodplain, EQAG stated such liability is possible and, in fact, he has been a witness in a case where one landowner was sued by an adjacent landowner for damages due to activities in a floodplain.

NEPA Call-In contacted the Assistant General Counsel, GSA National Office, concerning GSA's potential liability to adjacent landowners. They stated there is a potential for litigation due to GSA's alteration of the floodplain. For instance, there may be "takings" liability under the Fifth Amendment to the Constitution. GSA could be held liable for alterations to the floodplain that result in damage or "taking" an adjacent or downstream landowner's property without compensation. Also, there may be TORT liability due to property damage caused by GSA's alteration of the floodplain. In this case, it must be found that GSA acted negligently or with careless disregard for adjacent and downstream landowners. GSA can protect itself against this type of lawsuit by analyzing the impacts of the proposed floodplain alteration, and choosing floodproofing that does not adversely affect adjacent and downstream landowners.

NEPA Call-In provided you the above information via fax on October 23, 1997. You recontacted NEPA Call-In and stated the proposed courthouse site was actually in the 500-year floodplain, and asked whether this fact changes NEPA Call-In's analysis of the situation. The proposed elevation of the site will actually raise the site above the 500-year floodplain.

NEPA Call-In contacted Director, GSA NEPA Program, Division of Cultural and Environmental Programs, GSA National Office, who stated that the operation of the U.S. Courts has been previously determined to be a critical action because the court must conduct its activities within certain prescribed time limits. The Director further stated that this determination must be made by the client agency and should be documented in your (GSA) files. You should provide your client with information about critical actions so that they may determine if their actions qualify. At your request, NEPA Call-In faxed you the following information on October 27, 1997 to assist you and your client:

1. "What is a Critical Action?" p. 22-23, Further Advise on Executive Order 11988, FEMA, undated; and
2. "Critical Actions," p.26-27, Floodplain Management Guidelines for Implementing E.O. 11988, WRC, February 10, 1978.

As stated above the WRC guidelines for implementing EO 11988 state critical actions should be held to the higher standard of the 500-year floodplain. The guidelines states, for critical actions, "an alternative location must be sought completely outside the larger floodplain [500-year floodplain]." Therefore, if the client agency determines their action is a critical action, GSA should determine there is no practicable alternative before siting the critical action in a 500-year floodplain. As mentioned above the determination of whether a site is in a floodplain occurs before taking action. Any alterations to the site (floodproofing) will occur after the determination that the site is in the floodplain and subject to the requirements of EO 11988. Although elevating the site may remove it from the floodplain, the requirements of EO 11988 still apply.

The materials in this TI have been prepared for use by GSA employees and contractors and are made available at this site only to permit the general public to learn more about NEPA. The information is not intended to constitute legal advice or substitute for obtaining legal advice from an attorney licensed in your state and may or may not reflect the most current legal developments. Readers should also be aware that this response is based

upon laws, regulations, and policies in place at the time it was prepared and that this response will not be updated to reflect changes to those laws, regulations and policies.

Sincerely,

(Original Signed)

NEPA Call-In Researcher